


The claims, as amended, specify that leaching is initiated under alkaline conditions. Simmons, at column 2, lines 65-67, specifies that the slurry has a very low pH, preferably below pH 1.5. Australian Patent 73192/87 discloses at page 3, lines 35-37, that the pH can be no greater than about 3.0. Both of these disclosures specify a low pH and the strong acidic conditions are different than the alkaline conditions now specified in the claims. Also, there is no suggestion of using a slurry having alkaline conditions. Moreover, claims 5 and 6 specify that the material is bleached at atmospheric pressures in an open tank reactor. Simmons discloses bleaching at pressures of 460 psi at column 4, lines 55-57 and Australian Patent 73192/87 discloses a pressure of 50-70 psi at page 3, lines 35-37.

The claims are allowable over the prior art and favorable action is eagerly and earnestly solicited. If any issues remain, and the Examiner believes a telephone conversation will resolve such issues, the Examiner is urged to contact the undersigned attorney.

A one-month extension of time accompanies this Amendment. If any additional fees are due and owing, the Commissioner is authorized to charge Deposit Account 08-2455.

Respectfully submitted,

  
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(Amended) 1. A method of processing a mineral composition comprising a refractory material the method comprising milling the composition to a particle size of  $P_{80}$  of less than 25 microns and leaching said composition with a solution comprising lime and/or limestone in the presence of an oxygen containing gas, the leaching being initiated under alkaline conditions.

(Amended) 12. The method of claim 1, wherein the solution has a pH of the solution is between about [6] 7 to about 12.

(Amended) 13. The method of claim 1, wherein the solution has a pH of between about [6] 7 to about 9.

(Amended) 17. A method of recovering precious metals from a mineral composition comprising a refractory material containing precious metals, the method comprising:

grinding the material to a particle size of 80% passing 25 $\mu$ m or less;

leaching the ground material in the presence of lime and/or limestone and an oxygen containing gas, the leaching being initiated under alkaline conditions; and

subjecting the leached material to a further leaching step to recover any precious metals.

(Amended) 23. A method of recovering gold from a refractory material containing gold having a carbonaceous fraction, the method comprising grinding the ore to a particle size of 80% passing 25 micron or less, leaching the ground material with a solution comprising lime and/or limestone at a pH of between about [6] 7 to about 12 in the presence of an oxygen containing

gas, the leaching being initiated under alkaline conditions,  
subjecting the leached material to a further leaching step in the  
presence of a cyanide and recovering gold from the cyanide  
leachate.